

Simulation of doubling R1 pad density

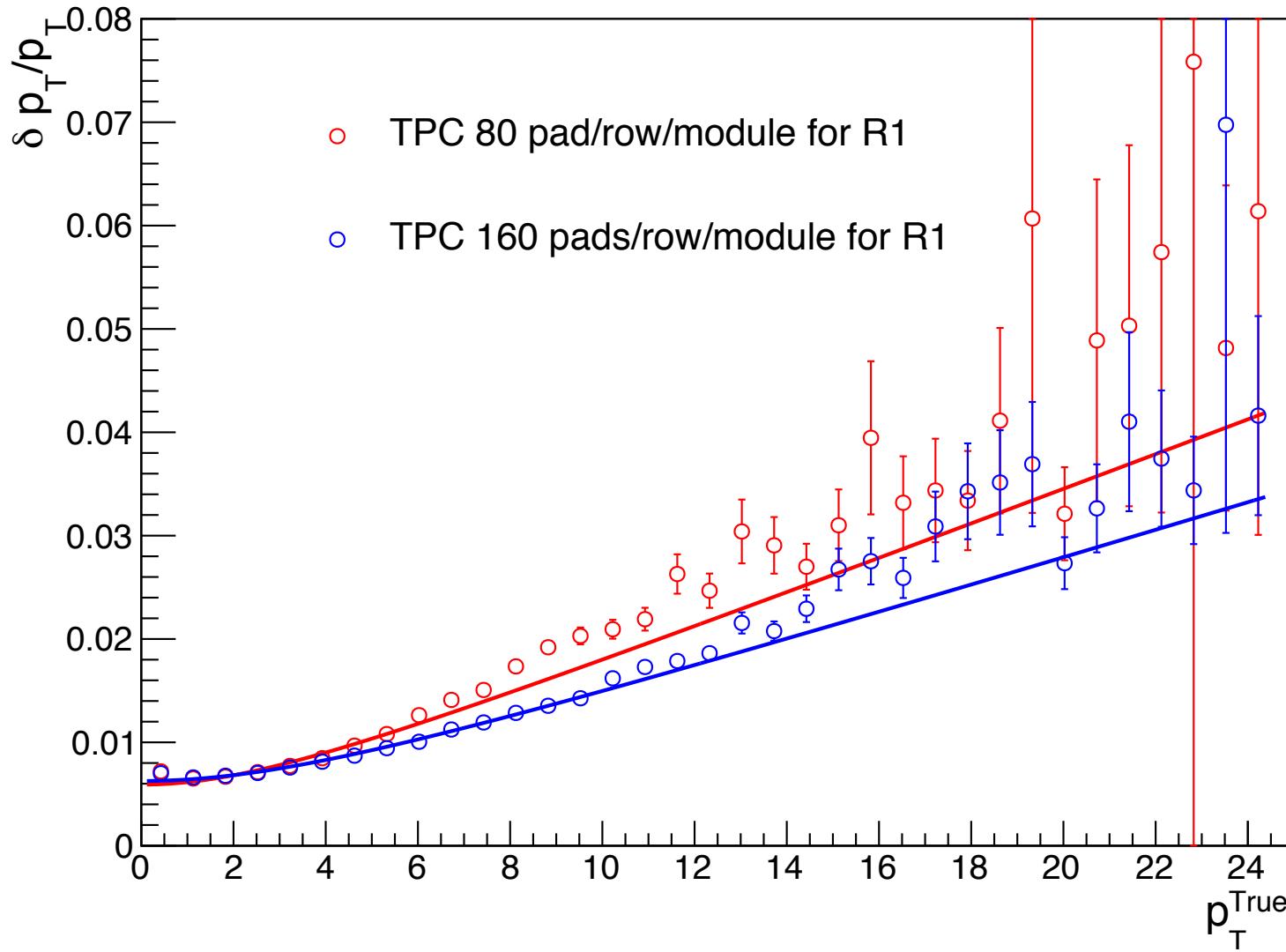
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Simulation set up

- Input Single pions (π^+/π^-) per event with $|y| < 0.5$, $|z| < 10$, $0 < pT < 40$ GeV.
- Cylindrical cell geometry for tracking detectors (MAPS +INTT+ TPC)
- 40 layers of TPC
- R1: 5 cards/R1 * 12 R1/end * 2 end/TPC = 120 cards/TPC
R2: 8 cards/R2 * 12 R2/end * 2 end/TPC = 192 cards/TPC
R3: 12 cards/R3 * 12 R3/end * 2 end/TPC = 288 cards/TPC
- R1 has 80 pads/row/module. Following slides shows tracking performance while changing R1 to 160 pads/row/module.
- No space charge effect.

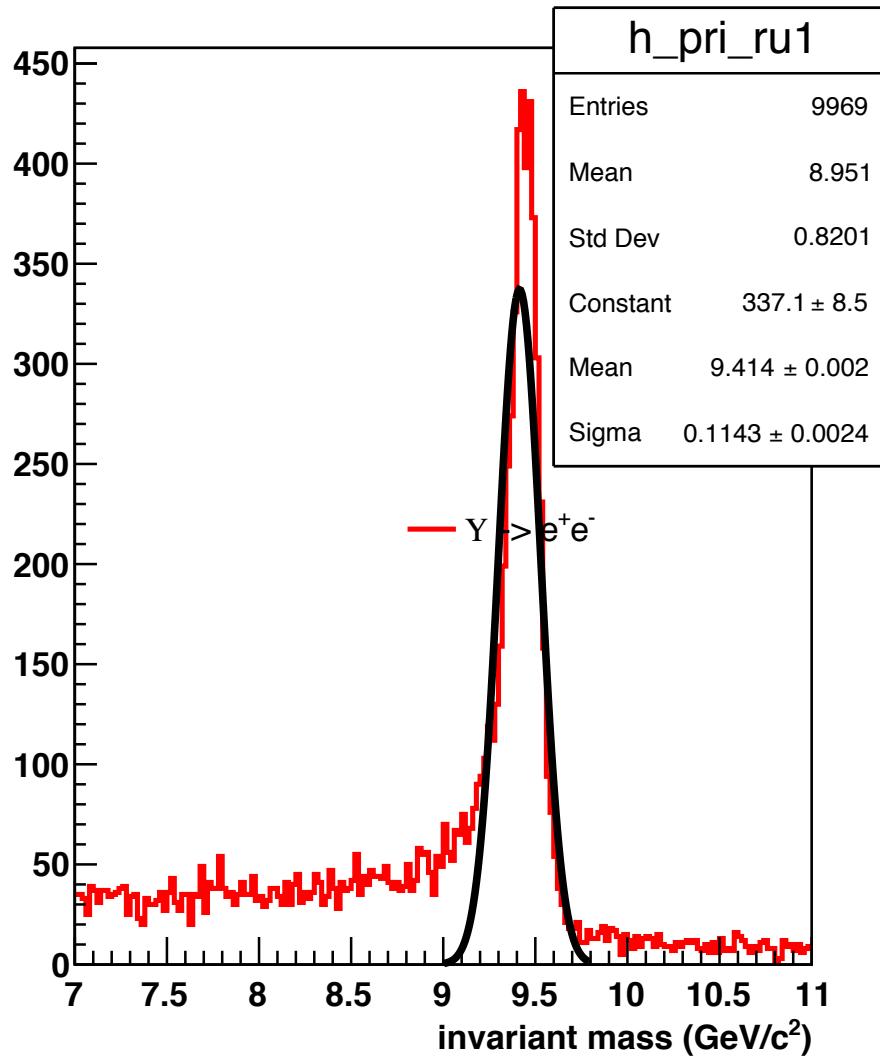
MAPS (cyl) +INTT (cyl) + TPC (40 layers + realistic readout plane)

$\Delta dp_T/p_T$



MAPS (cyl) +INTT (cyl) + TPC (40 layers + realistic readout plane)

TPC 80 pads/row/module
Reconstructed invariant mass



TPC 160 pads/row/module
Reconstructed invariant mass

